

MAR 6 2008

CUMBERLAND HARLAN EXPLORATION CORP.

PO BOX 311, BROOKSIDE, KY 40801

Phone (606) 573-1211

Fax (606) 837-3773

MARCH 4, 2008

Ms. Vickie Prather, Acting Supervisor
Inventory and Data Management Section
KPDES Branch
Division of Water
Frankfort Office Park
14 Reilly Road
Frankfort, Kentucky 40601

RE: KPDES Permit
No.: KY0100030
Bell County Kentucky

Dear Ms. Prather:

Enclosed is a "Renewal" for the above referenced
KPDES permit (With Fee).

Please contact me at (606) 573-1211 ext. 32 if you
have any questions concerning this renewal.

Respectfully,

Dennis Wilson
Cumberland Harlan Exploration



STEVEN L. BESHEAR
GOVERNOR

ENVIRONMENTAL AND PUBLIC PROTECTION CABINET
DEPARTMENT FOR ENVIRONMENTAL PROTECTION
DIVISION OF WATER
14 REILLY ROAD
FRANKFORT, KENTUCKY 40601
www.kentucky.gov

ROBERT D. VANCE
SECRETARY

MAR 6 2008

February 4, 2008

Mr. Duane Bennett
P.O. Box 311
Brookside, Kentucky 40801

RE: KPDES No. KY0100030
Cumberland Harlan Exploration
Bell County, Kentucky

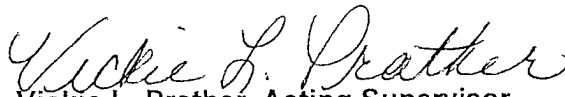
Dear: Mr. Bennett

Our records indicate that your Kentucky Pollutant Discharge Elimination System (KPDES) permit is due to expire on August 31, 2008. According to the KPDES Regulation 401 KAR 5:060, "any person with a currently effective permit shall submit a new application at least 180 days before the expiration of the existing permit..." **The due date for your permit renewal application is March 5, 2008.**

Please complete the enclosed application forms and return to the KPDES Branch, Division of Water, at the above address by the indicated due date. Applications received after the due date are in violation of 401 KAR 5:060, Section 1, which could result in enforcement action being taken.

If you have any questions regarding the completion of these forms, please contact me at (502) 564-8158, extension 470, or Ann Workman at extension 528.

Sincerely,

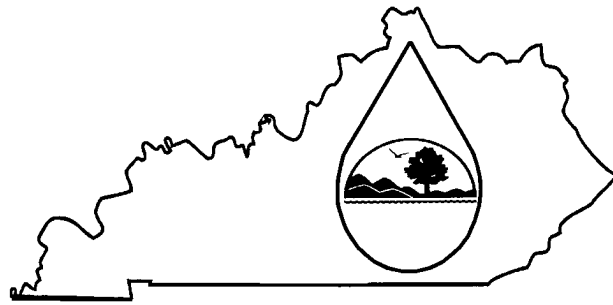

Vickie L. Prather, Acting Supervisor
Inventory and Data Management Section
KPDES Branch
Division of Water

VLP:ASW:asw

Enclosures

C: London Regional Office
Division of Water Files

KPDES FORM 1



KENTUCKY POLLUTANT DISCHARGE ELIMINATION SYSTEM

PERMIT APPLICATION

This is an application to: (check one)

- ☐ Apply for a new permit.
☒ Apply for reissuance of expiring permit.
☐ Apply for a construction permit.
☐ Modify an existing permit.

Give reason for modification under Item II.A.

A complete application consists of this form and one of the following:

Form A, Form B, Form C, Form F, or Short Form C

For additional information contact:

KPDES Branch (502) 564-3410

\$240.00

I. FACILITY LOCATION AND CONTACT INFORMATION	AGENCY USE	0	1	0	0	0	3	0

A. Name of business, municipality, company, etc. requesting permit
Cumberland Harlan Exploration Corporation

B. Facility Name and Location

Facility Location Name:

Left Fork Dewatering Well

Facility Location Address (i.e. street, road, etc.):

PO Box 311

Facility Location City, State, Zip Code:

Brookside, KY 40801

C. Facility Owner/Mailing Address

Owner Name:

Cumberland Harlan Exploration Corporation

Mailing Street:

PO Box 311

Mailing City, State, Zip Code:

Brookside, KY 40801

Telephone Number:
(606) 573-1211

II. FACILITY DESCRIPTION

A. Provide a brief description of activities, products, etc: Discharge water from and abandoned underground mine in an effort to obtain natural gas production.

B. Standard Industrial Classification (SIC) Code and Description

Principal SIC Code &
Description:

None

Other SIC Codes:

None

III. FACILITY LOCATION

A. Attach a U.S. Geological Survey 7 ½ minute quadrangle map for the site. (See instructions)

B. County where facility is located:

Bell

City where facility is located (if applicable):

Arjay, KY Not in town.

C. Body of water receiving discharge:

Left Fork of Straight Creek

D. Facility Site Latitude (degrees, minutes, seconds):

36-50-44

Facility Site Longitude (degrees, minutes, seconds):

83-37-29

E. Method used to obtain latitude & longitude (see instructions):

Topo Map Coordinates

N/A

F. Facility Dun and Bradstreet Number (DUNS #) (if applicable):

IV. OWNER/OPERATOR INFORMATION**A. Type of Ownership:**

☐ Publicly Owned ☒ Privately Owned ☐ State Owned ☐ Both Public and Private Owned ☐ Federally owned

B. Operator Contact Information (See instructions)

Name of Treatment Plant Operator:

Cumberland Harlan Exploration Corporation

Telephone Number:

(606) 573 - 1211

Operator Mailing Address (Street):

PO Box 311

Operator Mailing Address (City, State, Zip Code):

Brookside, Kentucky 40801

Is the operator also the owner?

Yes ☒ No ☐

Is the operator certified? If yes, list certification class and number below.

Yes ☒ No ☒

Certification Class:

N/A

Certification Number:

V. EXISTING ENVIRONMENTAL PERMITS

Current NPDES Number:

KY0100030

Issue Date of Current Permit:

June 18-2004

Expiration Date of Current Permit:

August 31, 2008

Number of Times Permit Reissued:

2

Date of Original Permit Issuance:

October 1, 1995

Sludge Disposal Permit Number:

N/A

Kentucky DOW Operational Permit #:

N/A

Kentucky DSMRE Permit Number(s):

848-0177

C. Which of the following additional environmental permit/registration categories will also apply to this facility?

CATEGORY	EXISTING PERMIT WITH NO.	PERMIT NEEDED WITH PLANNED APPLICATION DATE
Air Emission Source	N/A	
Solid or Special Waste	N/A	
Hazardous Waste - Registration or Permit	N/A	

VI. DISCHARGE MONITORING REPORTS (DMRs)

KPDES permit holders are required to submit DMRs to the Division of Water on a regular schedule (as defined by the KPDES permit). The information in this section serves to specifically identify the department, office or individual you designate as responsible for submitting DMR forms to the Division of Water.

A. Name of department, office or official submitting DMRs:	Cumberland Harlan Exploration Corporation
B. Address where DMR forms are to be sent. (Complete only if address is different from mailing address in Section I.)	
DMR Mailing Name:	Cumberland Harlan Exploration Corporation
DMR Mailing Street:	PO Box 311
DMR Mailing City, State, Zip Code:	Brookside, KY 40801
DMR Official Telephone Number:	(606) 573 - 1211

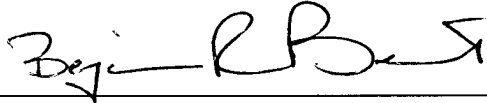
VII. APPLICATION FILING FEE

KPDES regulations require that a permit applicant pay an application filing fee equal to twenty percent of the permit base fee. Please examine the base and filing fees listed below and in the Form 1 instructions and enclose a check payable to "Kentucky State Treasurer" for the appropriate amount. Descriptions of the base fee amounts are given in the "General Instructions."

Facility Fee Category:	Filing Fee Enclosed:
Surface Mining Operation	\$ 240.00

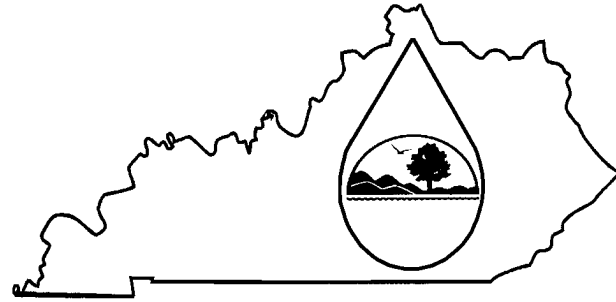
VIII. CERTIFICATION

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

NAME AND OFFICIAL TITLE (type or print):	TELEPHONE NUMBER (area code and number):
Benjamin Bennett, President	(606) 573 - 1211
SIGNATURE 	DATE: 3-04-08

KPDES FORM C

KENTUCKY POLLUTANT DISCHARGE ELIMINATION SYSTEM



MAK 6 2007

PERMIT APPLICATION

A complete application consists of this form and Form 1.
For additional information, contact KPDES Branch, (502) 564-3410.

Name of Facility: Left Fork Dewatering Well				County: Bell			
I. OUTFALL LOCATION				AGENCY USE			

For each outfall list the latitude and longitude of its location to the nearest 15 seconds and the name of the receiving water.

Outfall No. (list)	LATITUDE			LONGITUDE			RECEIVING WATER (name)
	Degrees	Minutes	Seconds	Degrees	Minutes	Seconds	
1	36	50	44	83	37	29	Left Fork of Straight Creek

II. FLOWS, SOURCES OF POLLUTION, AND TREATMENT TECHNOLOGIES

- A. Attach a line drawing showing the water flow through the facility. Indicate sources of intake water, operations contributing wastewater to the effluent, and treatment units labeled to correspond to the more detailed descriptions in Item B. Construct a water balance on the line drawing by showing average flows between intakes, operations, treatment units, and outfall. If a water balance cannot be determined (e.g., for certain mining activities), provide a pictorial description of the nature and amount of any sources of water and any collection or treatment measures.
- B. For each outfall, provide a description of: (1) all operations contributing wastewater to the effluent, including process wastewater, sanitary wastewater, cooling water, and storm water runoff; (2) the average flow contributed by each operation; and (3) the treatment received by the wastewater. Continue on additional sheets if necessary.

OUTFALL NO. (list)	OPERATION(S) CONTRIBUTING FLOW		TREATMENT	
	Operation (list)	Avg/Design Flow (include units)	Description	List Codes from Table C-1
1	Dewatering Well #1	500 gpm	Well Only	

II. FLOWS, SOURCES OF POLLUTION, AND TREATMENT TECHNOLOGIES (Continued)

C. Except for storm water runoff, leaks, or spills, are any of the discharges described in Items II-A or B intermittent or seasonal?

☒ Yes (Complete the following table.)

☐ No (Go to Section III.)

OUTFALL NUMBER	OPERATIONS CONTRIBUTING FLOW	FREQUENCY		FLOW				
		Days Per Week	Months Per Year	Flow Rate (in mgd)		Total volume (specify with units)		Duration (in days)
				Long-Term Average	Maximum Daily	Long-Term Average	Maximum Daily	
(list)	(list)	(specify average)	(specify average)					
1	Dewatering Well #1	5	3-4					

III. MAXIMUM PRODUCTION

A. Does an effluent guideline limitation promulgated by EPA under Section 304 of the Clean Water Act apply to your facility?

☐ Yes (Complete Item III-B) List effluent guideline category:

☒ No (Go to Section IV)

B. Are the limitations in the applicable effluent guideline expressed in terms of production (or other measures of operation)?

☐ Yes (Complete Item III-C)

☒ No (Go to Section IV)

C. If you answered "Yes" to Item III-B, list the quantity which represents the actual measurement of your maximum level of production, expressed in the terms and units used in the applicable effluent guideline, and indicate the affected outfalls.

MAXIMUM QUANTITY			Affected Outfalls (list outfall numbers)
Quantity Per Day	Units of Measure	Operation, Product, Material, Etc. (specify)	

IV. IMPROVEMENTS

A. Are you now required by any federal, state or local authority to meet any implementation schedule for the construction, upgrading, or operation of wastewater equipment or practices or any other environmental programs which may affect the discharges described in this application? This includes, but is not limited to, permit conditions, administrative or enforcement orders, enforcement compliance schedule letters, stipulations, court orders and grant or loan conditions.

☐ Yes (Complete the following table)

☒ No (Go to Item IV-B)

IDENTIFICATION OF CONDITION AGREEMENT, ETC.	AFFECTED OUTFALLS		BRIEF DESCRIPTION OF PROJECT	FINAL COMPLIANCE DATE	
	No.	Source of Discharge		Required	Projected

B. OPTIONAL: You may attach additional sheets describing any additional water pollution control programs (or other environmental projects which may affect your discharges) you now have under way or which you plan. Indicate whether each program is now under way or planned, and indicate your actual or planned schedules for construction.

V. INTAKE AND EFFLUENT CHARACTERISTICS

A, B, & C: See instructions before proceeding – Complete one set of tables for each outfall – Annotate the outfall number in the space provided.

NOTE: Tables V-A, V-B, and V-C are included on separate sheets numbered 5-18.

D. Use the space below to list any of the pollutants (refer to SARA Title III, Section 313) listed in Table C-3 of the instructions, which you know or have reason to believe is discharged or may be discharged from any outfall. For every pollutant you list, briefly describe the reasons you believe it to be present and report any analytical data in your possession.

POLLUTANT	SOURCE	POLLUTANT	SOURCE
None			

VI. POTENTIAL DISCHARGES NOT COVERED BY ANALYSIS

A. Is any pollutant listed in Item V-C a substance or a component of a substance which you use or produce, or expect to use or produce over the next 5 years as an immediate or final product or byproduct?

☐

Yes (List all such pollutants below)

☒

No (Go to Item VI-B)

B. Are your operations such that your raw materials, processes, or products can reasonably be expected to vary so that your discharge of pollutants may during the next 5 years exceed two times the maximum values reported in Item V?

☐

Yes (Complete Item VI-C)

☒

No (Go to Item VII)

C. If you answered "Yes" to Item VI-B, explain below and describe in detail to the best of your ability at this time the sources and expected levels of such pollutants which you anticipate will be discharged from each outfall over the next 5 years. Continue on additional sheets if you need more space.

VII. BIOLOGICAL TOXICITY TESTING DATA

Do you have any knowledge of or reason to believe that any biological test for acute or chronic toxicity has been made on any of your discharges or on a receiving water in relation to your discharge within the last 3 years?

☐ Yes (Identify the test(s) and describe their purposes below)

☒ No (Go to Section VIII)

VIII. CONTRACT ANALYSIS INFORMATION

Were any of the analyses reported in Item V performed by a contract laboratory or consulting firm?

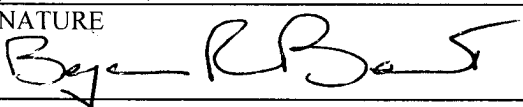
☐ Yes (list the name, address, and telephone number of, and pollutants analyzed by each such laboratory or firm below)

☒ No (Go to Section IX)

NAME	ADDRESS	TELEPHONE (Area code & number)	POLLUTANTS ANALYZED (list)
No discharge to report during the last period of permit renewal. No discharge from this facility during the last five years.			

IX. CERTIFICATION

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

NAME AND OFFICIAL TITLE (type or print): Benjamin Bennett, President	TELEPHONE NUMBER (area code and number): 606-573-1211
SIGNATURE 	DATE 3-4-08

PLEASE PRINT OR TYPE IN THE UNSHADED AREAS ONLY. You may report some or all of this information on separate sheets (use the same format) instead of completing these pages. (See instructions)

V. INTAKE AND EFFLUENT CHARACTERISTICS (Continued from page 3 of Form C)										OUTFALL NO.	
Part A - You must provide the results of at least one analysis for every pollutant in this table. Complete one table for each outfall. See instructions for additional details.											
1. POLLUTANT	2. EFFLUENT						3. UNITS (specify if blank)		4. INTAKE (optional)		
	a. Maximum Daily Value		b. Maximum 30-Day Value (if available)		c. Long-Term Avg. Value (if available)		d. No. of Analyses	a. Concentration	b. Mass	a. Long-Term Avg. Value (1) Concentration	b. No of Analyses
	(1) Concentration	(2) Mass	(1) Concentration	(2) Mass	(1) Concentration	(2) Mass					
a. Biochemical Oxygen Demand (BOD)											
b. Chemical Oxygen Demand (COD)											
c. Total Organic Carbon (TOC)											
d. Total Suspended Solids (TSS)	1	8.3					1	PPM	lbs/gal		
e. Ammonia (as N)					Not Available						
f. Flow (in units of MGD)	VALUE	0.72	VALUE		VALUE			MGD	MGD	VALUE	
g. Temperature (winter)	VALUE	34°	VALUE		VALUE			1°	°c	VALUE	
h. Temperature (summer)	VALUE	75°	VALUE		VALUE			24°	°c	VALUE	
i. pH	7.89	MINIMUM	MAXIMUM	MINIMUM	MAXIMUM			STANDARD UNITS			

Part B - In the MARK "X" column, place an "X" in the Believed Present column for each pollutant you know or have reason to believe is present. Place an "X" in the Believed Absent column for each pollutant you believe to be absent. If you mark the Believed Present column for any pollutant, you must provide the results of at least one analysis for that pollutant. Complete one table for each outfall. See the instructions for additional details and requirements.

1. POLLUTANT AND CAS NO. (if available)	2. MARK "X"		3. EFFLUENT								4. UNITS		6. INTAKE (optional)		
	a. Believed Present	b. Believed Absent	a. Maximum Daily Value		b. Maximum 30-Day Value (if available)		c. Long-Term Avg. Value (if available)		d. No. of Analyses	a. Concentration	b. Mass	a. Long-Term Avg		b. No. of Analyses	
			(1) Concentration	(2) Mass	(1) Concentration	(2) Mass	(1) Concentration	(2) Mass				(1) Concentration	(2) Mass		
a. Bromide (24959-67-9)															
b. Bromine Total Residual															
c. Chloride															
d. Chlorine, Total Residual		X													
e. Color															
f. Fecal Coliform															
g. Fluoride (16984-48-8)															
h. Hardness (as CaCO ₃)		X													
i. Nitrate — Nitrite (as N)															
j. Nitrogen, Total Organic (as N)															
k. Oil and Grease		X													
l. Phosphorous (as P), Total 7723-14-0															
m. Radioactivity															
(1) Alpha, Total															
(2) Beta, Total															
(3) Radium Total															
(4) Radium, 226, Total															

Part B - Continued

1. POLLUTANT and CAS NO. (if available)	2. MARK "X"		3. EFFLUENT						4. UNITS		5. INTAKE (optional)			
	a. Believed Present	b. Believed Absent	a. Maximum Daily Value		b. Maximum 30-Day Value (if available)		c. Long-Term Avg. Value (if available)		d. No. of Analyses	a. Concentration	b. Mass	a. Long-Term Avg. Value		b. No. of Analyses
			(1) Concentration	(2) Mass	(1) Concentration	(2) Mass	(1) Concentration	(2) Mass				(1) Concentration	(2) Mass	
Sulfate (as SO ₄) (14808-79-8)	X				1.80					mg/l				
Sulfide (as S)														
Sulfite (as SO ₃) (14286-46-3)														
Surfactants														
Aluminum, Total (7429-90)														
Barium, Total (7440-39-3)														
Boron, Total (7440-42-8)														
Cobalt, Total (7440-48-4)														
Iron, Total (7439-89-6)	X		4.10		0.84					mg/l				
Magnesium Total (7439-96-4)														
Molybdenum Total (7439-98-7)														
Manganese, Total (7439-96-6)	X		4.0		0.63					mg/l				
Tin, Total (7440-31-5)														
Titanium, Total (7440-32-6)														

C- If you are a primary industry and this outfall contains process wastewater, refer to Table C-2 in the instructions to determine which of the GC/MS fractions you must test for. Mark "X" in the Testing Required column for all such GC/MS fractions that apply to your industry and for ALL toxic metals, cyanides, and total phenols. If you are not required to mark this column (secondary industries, nonprocess wastewater outfalls, and non-required GC/MS fractions), mark "X" in the Believed Present column for each pollutant you know or have reason to believe is present. Mark "X" in the Believed Absent column for each pollutant you believe to be absent. If you mark "X" in the Testing Required or Believed Present columns for any pollutant, you must provide the result of at least one analysis for that pollutant. Note that there are seven pages to this part; please review each carefully. Complete Table (all seven pages) for each outfall. See instructions for additional details and requirements.

1. POLLUTANT and CAS NO. (available)	2. MARK "X"		3. EFFLUENT						4. UNITS		5. INTAKE (optional)		b. No. of Analyses		
	a. Testing Required	b. Believed Present	b. Believed Absent	a. Maximum Daily Value		b. Maximum 30-Day Value (if available)		c. Long-Term Avg. Value (if available)		d. No. of Analyses	a. Concentration	b. Mass		a. Long-Term Avg Value	
				(1) Concentration	(2) Mass	(1) Concentration	(2) Mass	(1) Concentration	(2) Mass					(1) Concentration	(2) Mass
TOTALS, CYANIDE AND TOTAL PHENOLS															
Antimony Total (7440-36-0)	X						< 0.01					mg/l			
Arsenic, Total (7440-38-2)	X						< 0.01					mg/l			
Beryllium Total (7440-41-7)	X						0.008					mg/l			
Cadmium Total (7440-43-9)	X						< 0.01					mg/l			
Chromium Total (7440-43-9)	X						< 0.01					mg/l			
Copper Total (7550-50-8)	X						0.03					mg/l			
Lead Total (7439-92-1)	X						< 0.01					mg/l			
Mercury Total (7439-97-6)	X						< 0.01					mg/l			
Nickel, Total (7440-02-0)	X						< 0.01					mg/l			
Selenium, Total (7782-49-2)	X						< 0.01					mg/l			
Silver, Total (7440-28-0)	X						< 0.01					mg/l			

1. POLLUTANT And CAS NO. (If available)	2. MARK "X"			3. EFFLUENT						4. UNITS		5. INTAKE (optional)			
	a. Testing Required	b. Believed Present	b. Believed Absent	a. Maximum Daily Value		b. Maximum 30-Day Value (If available)		c. Long-Term Avg. Value (If available)		d. No. of Analyses	a. Concentration	b. Mass	a. Long-Term Avg Value		b. No. of Analyses
				(1) Concentration	(2) Mass	(1) Concentration	(2) Mass	(1) Concentration	(2) Mass				(1) Concentration	(2) Mass	
METALS, CYANIDE AND TOTAL PHENOLS (Continued)															
2M. Thallium, Total (7440-28-0)	X					< 0.01									
3M. Zinc, Total (7440-66-6)	X					< 0.01									
4M. Cyanide, Total (57-12-5)	X					0.004									
5M. Phenols, Total	X					< 0.01									
DIOXIN															
3,3,7,8 Tetra- chlorodibenzo, Dioxin (1784-01-6)															
DISCRIPTION RESULTS:															
GC/MS FRACTION – VOLATILE COMPOUNDS															
V. Acrolein (107-02-8)															
V. Acrylonitrile (107-13-1)															
V. Benzene (71-43-2)															
V. Bromoform (75-25-2)															
V. Carbon Tetrachloride (56-23-5)															
V. Chloro- benzene (108-90-7)															
V. chlorodibromomethane (124-48-1)															

KPDES PERMIT APPLICATION
KPDES PERMIT # KY0100030

ARJAY, KENTUCKY

IDLE DEWATERING WELL

SM/4 PINEVILLE 15' QUADRANGLE

STATE OF KENTUCKY
KENTUCKY GEOLOGICAL SURVEY
UNIVERSITY OF KENTUCKY

